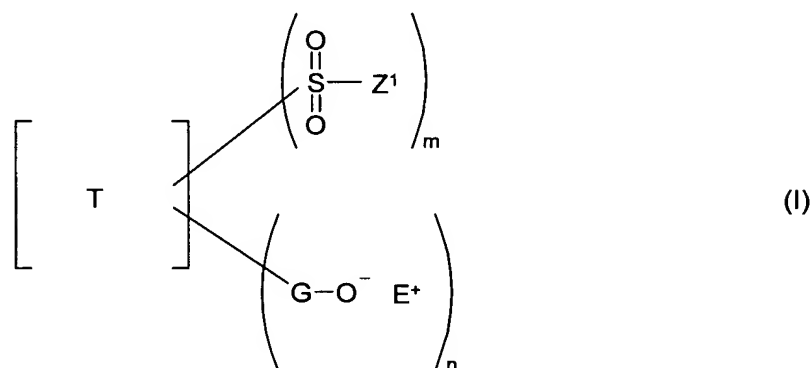


What is claimed is:

1. A method for the production of a phthalocyanine pigment preparation, said method comprising finely dividing a crude phthalocyanine pigment by means of a method selected from the group consisting of dry grinding, wet grinding, salt kneading, acid pasting and acid swelling to form a prepigment and then subjecting the prepigment to a finish treatment in a mixture of water and an organic solvent at alkaline pH, at elevated temperature and in the presence of at least one pigment dispersant selected from the group consisting of phthalocyaninesulfonic acids, phthalocyaninecarboxylic acids, phthalocyaninesulfonic salts, phthalocyaninecarboxylic salts and phthalocyaninesulfonamides.
2. The method as claimed in claim 1, wherein the phthalocyanine is halogen-free or is substituted by up to 16 halogen atoms.
3. The method as claimed in claim 1 or 2, wherein the phthalocyanine is a copper phthalocyanine.
4. The method as claimed in one or more of claims 1 to 3, wherein the organic solvent of the finish treatment is a solvent from the group of C₁-C₁₀ alcohols, glycols, polyglycols, ethers, glycol ethers, ketones, aliphatic acid amides, urea derivatives, cyclic carboxamides, nitriles, aliphatic or aromatic amines, chlorinated aliphatic hydrocarbons, aromatic hydrocarbons, substituted aromatics, aromatic heterocycles, sulfones and sulfoxides, and mixtures thereof.
5. The method as claimed in one or more of claims 1 to 4, wherein the finish is carried out at a pH of greater than or equal to 9.
6. The method as claimed in one or more of claims 1 to 5, wherein the weight ratio of water to organic solvent is 5:95 to 95:5.
7. The method as claimed in one or more of claims 1 to 6, wherein 0.5 to 40 parts by weight of the mixture of water and organic solvent are used per part by weight of pigment.
8. The method as claimed in one or more of claims 1 to 7, wherein the

finish is carried out at a temperature of 50 to 250°C.

9. The method as claimed in one or more of claims 1 to 8, wherein the pigment dispersant is a compound of the formula (I)



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in which

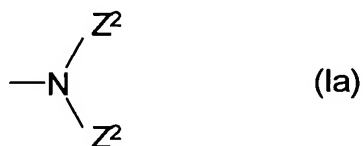
T is a phthalocyanine radical which is either metal-free or contains a metal atom from the group Cu, Fe, Zn, Ni, Co, Al, Ti or Sn, especially Cu, and which is substituted by 1 to 4 chlorine atoms or preferably is chlorine-free;

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m and n are identical or different and are a number from 0 to 4 with the proviso that the sum of m and n is a number from 1 to 4;

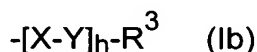
and in which the radical Z^1 is a radical of the formula (Ia)

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in which the two radicals Z^2 are identical or different and are a radical of the formula (Ib)

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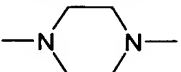
in which

h is a number from 0 to 100, preferably 0 to 20, more preferably 0, 1, 2, 3, 4 or 5;

X is a C₂-C₆ alkylene radical, C₅-C₇ cycloalkylene radical, or a combination of these radicals, it being possible for these radicals to be substituted by 1 to 4 C₁-C₄ alkyl radicals, hydroxyl radicals, C₁-C₄ alkoxy radicals, (C₁-C₄)-hydroxyalkyl radicals and/or by 1 to 2

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further C₅-C₇ cycloalkyl radicals, or in which X, if h is > 1, can also be a combination of the stated definitions;

Y is an -O-,  or a group -NR²-,

or in which Y, if h > 1, can also be a combination of the stated definitions;

R² and R³ independently of one another are a hydrogen atom, a substituted or unsubstituted, or partly fluorinated or perfluorinated, branched or unbranched C₁-C₂₀ alkyl group, a substituted or unsubstituted C₅-C₈ cycloalkyl group or a substituted or unsubstituted, or partly fluorinated or perfluorinated C₂-C₂₀ alkenyl group, it being possible for the substituents to be hydroxyl, phenyl, cyano, chlorine, bromine, amino, C₂-C₄ acyl or C₁-C₄ alkoxy and to be preferably 1 to 4 in number, or

R² and R³ together with the nitrogen atom of the NR² group form a saturated, unsaturated or aromatic heterocyclic 5- to 7-membered ring which if desired contains 1 or 2 further nitrogen, oxygen or sulfur atoms or carbonyl groups in the ring, is unsubstituted or substituted by 1, 2 or 3 radicals from the group OH, NH₂, phenyl, CN, Cl, Br, C₁-C₄ alkyl, C₁-C₄ alkoxy, C₂-C₄ acyl and carbamoyl, and if desired carries 1 or 2 benzo-fused saturated, unsaturated or aromatic, carbocyclic or heterocyclic rings;

or
Z²

is hydrogen, hydroxyl, amino, phenyl, (C₁-C₄)-alkylene-phenyl, C₅-C₃₀ cycloalkyl, C₂-C₃₀ alkenyl, or is branched or unbranched C₁-C₃₀ alkyl, it being possible for the phenyl ring, the (C₁-C₄)-alkylene-phenyl group, the C₅-C₃₀ cycloalkyl group, the C₂-C₃₀ alkenyl group and the C₁-C₃₀ alkyl group to be substituted by one or more, e.g., 1, 2, 3 or 4, substituents from the group Cl, Br, CN, NH₂, OH, C₆H₅, C₆H₅ substituted by 1, 2 or 3 C₁-C₂₀ alkoxy radicals, carbamoyl, carboxyl, C₂-C₄ acyl, C₁-C₈ alkyl, NR²R³, where R² and R³ are as defined above, and C₁-C₄ alkoxy, e.g. methoxy or ethoxy, or for the alkyl group and the alkenyl group to be perfluorinated or partly fluorinated;

G is a divalent group -CO-, -SO₂-, -SO₂N(R⁶)-R⁵-CO-, -SO₂N(R⁶)-R⁵-SO₂-, -CON(R⁶)-R⁵-CO- or -CON(R⁶)-R⁵-SO₂-, and R⁵ is a divalent branched or unbranched, saturated or unsaturated, aliphatic hydrocarbon radical having 1 to 20 carbon atoms, or a C₅-C₇

cycloalkylene radical, or a divalent aromatic radical having 1, 2 or 3, preferably 1 or 2, aromatic rings, it being possible for the rings to be in fused form or to be linked by a bond, such as, for example, a phenyl, biphenyl or naphthyl radical, or a heterocyclic radical having 1, 2 or 3 rings and containing 1, 2, 3 or 4 heteroatoms from the group O, N and S, or is a combination thereof; the aforementioned hydrocarbon, cycloalkylene, aromatic and heteroaromatic radicals can be substituted by 1, 2, 3 or 4 substituents from the group OH, CN, F, Cl, Br, NO₂, CF₃, C₁-C₆ alkoxy, S-C₁-C₆ alkyl, NHCONH₂, NHC(NH)NH₂, NHCO-C₁-C₆ alkyl, C₁-C₆ alkyl, COOR²⁰, CONR²⁰R²¹, NR²⁰R²¹, SO₃R²⁰ or SO₂-NR²⁰R²¹, R²⁰ and R²¹ being identical or different and being hydrogen, phenyl or C₁-C₆ alkyl, and R⁶ is hydrogen, R⁵-H, R⁵-COO⁻E⁺ or R⁵-SO₃⁻E⁺; and E⁺ is H⁺; the equivalent M^{s+}/s of a metal cation M^{s+}, preferably from main groups 1 to 5 or from transition groups 1 or 2 or 4 to 8 of the Periodic Table of the Chemical Elements, s being one of the numbers 1, 2 or 3; a phosphonium ion; or an unsubstituted or substituted ammonium ion.

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10. The method as claimed in one or more of claims 1 to 9, wherein the at least one pigment dispersant is used in an amount of 0.1% to 25% by weight, based on the crude phthalocyanine pigment.

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11. The method as claimed in one of more of claims 1 to 10, wherein additionally auxiliaries are used from the group of surfactants, nonpigmentary and pigmentary dispersants, fillers, standardizers, resins, waxes, defoamers, antidust agents, extenders, shading colorants, preservatives, drying retarders, rheology control additives, wetting agents, antioxidants, UV absorbers, light stabilizers, or a combination thereof.

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